

## **Claims**

1. A return path management system which delivers return paths from user televisions to provider systems in a packetized form, comprising a return path server, a provider database, a user database and a content database, wherein the provider database maintains providers information depending on levels which the provider systems belong to and which determine service levels, the user database maintains users information required for users authentication, a content database maintains contents information provided from the provider systems, and the return path server receives order information, identifies a provider to whom the received order information should be delivered, determines a service level based on the level which the provider belongs to in reference to the provider database, and performs interpretation and communication packetization of the order information depending on the determined service level.
2. The return path management system as set forth in claim 1, wherein the provider database maintains the providers information by categorizing each of the provider systems into any one of four levels based on the service level requested from the provider, and the return path server identifies the provider and determines the service level referring to the received order information and the provider database, and then,
  - if the user's order is determined to be delivered to the provider system belonging to a first level, the return path server identifies an URL address of the provider system from the order information and delivers the received order information to the provider system in a packetized form,
  - if the user's order is determined to be delivered to the provider system belonging to a second level, the return path server performs a user authentication referring to the order information and the user database, and delivers a user authentication information in combination

with the received order information to the provider system in a packetized form,  
if the user's order is determined to be delivered to the provider system belonging to a  
third level, the return path server performs a user authentication referring to the order  
information and the user database, extracts a billing information from the order information to  
5 perform a billing processing in contact with a financial server as a representative of the provider,  
and delivers a user authentication information and a billing processing information in  
combination with the received order information to the provider system in a packetized form, or  
if the user's order is determined to be delivered to the provider system belonging to a fourth  
level, the return path server performs a user authentication referring to the order information and  
10 the user database, extracts a billing information from the order information to perform a billing  
processing in contact with a financial server as a representative of the provider, delivers a user  
authentication information and a billing processing information in combination with the  
received order information to the provider system in a packetized form, and updates the content  
database referring to contents received from the provider system.

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3. The return path management system as set forth in claim 2, wherein if the user's order is  
determined to be delivered to the provider system belonging to a first level, a communication  
packet delivered from the return path management system to the provider system contains a  
service level of the provider, a destination uniform resource locator (URL) of the provider  
20 system and an encapsulated packet of the order information; if the user's order is determined to  
be delivered to the provider system belonging to a second level, a communication packet  
delivered from the return path management system to the provider system contains a service  
level of the provider, a destination URL of the provider system, a user identification information  
and an encapsulated packet of the order information; if the user's order is determined to be  
25 delivered to the provider system belonging to a third level, a communication packet delivered

from the return path management system to the provider system contains a service level of the provider, a destination URL of the provider system, a user identification information, a billing-processing information and an encapsulated packet of the order information; and if the user's order is determined to be delivered to the provider system belonging to a fourth level, a

5 communication packet delivered from the return path management system to the provider system contains a service level of the provider, a destination URL of the provider system, a user identification information, a billing-processing information, other order-related information and application-related information.

10 4. The return path management system as set forth in claim 1, wherein the return path management system has a hierarchy structure such that determination of the service level to the order information received from the user and processing of communication packets delivered from the return path management system to the provider system are separately performed.

15 5. The return path management system as set forth in claim 4, comprising a return path server and four transaction servers coupled to the return path server wherein the return path server receives an order information from the user, identifies the provider system to which the order information is required to be delivered and determines the level to which the identified provider system belongs, referring to the provider system, and a first transaction server of the four transaction servers treats the order information to be delivered to the provider system belonging to a first level, a second transaction server of the four transaction servers treats the order information to be delivered to the provider system belonging to a second level in which a user authentication is performed referring to the user database, a third transaction server of the four transaction servers treats the order information to be delivered to the provider system belonging to a third level in which a user authentication is performed referring to the user database and a

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billing processing is performed in contact with a financial server, and a fourth transaction server of the four transaction servers treats the order information to be delivered to the provider system belonging to a fourth level in which a user authentication is performed referring to the user database, a billing processing is performed in contact with a financial server, and an update of 5 contents is performed referring to the content database.

6. A return path management method, comprising:

- a) providing a return path management system comprised of a provider database which maintains providers information depending on service levels of which the provider requests, in 10 which the return path management system receives order information from a user, identifies a provider to whom the received order information should be delivered, determines a service level based on the level which the provider belongs to in reference to the provider database, and providing the determined service level;
- b) determining whether an order information from a user is received or not;
- 15 c) if an order information from a user is received, identifying a provider to whom the received order information should be delivered, followed by determination of a service level based on the level which the provider belongs to in reference to the provider database;
- d) performing interpretation and communication packetization of the order information depending on the determined service level.

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7. The return path management method as set forth in claim 6, wherein if the user's order is determined to be delivered to the provider system belonging to a first level, the system identifies an URL address of the provider system from the order information and delivers the received order information to the provider system in a packetized form,

25 if the user's order is determined to be delivered to the provider system belonging to a

second level, the return path server performs a user authentication referring to the order information and the user database, and delivers a user authentication information in combination with the received order information to the provider system in a packetized form,

if the user's order is determined to be delivered to the provider system belonging to a

5 third level, the return path server performs a user authentication referring to the order information and the user database, extracts a billing information from the order information to perform a billing processing in contact with a financial server as a representative of the provider, and delivers a user authentication information and a billing processing information in combination with the received order information to the provider system in a packetized form, or

10 if the user's order is determined to be delivered to the provider system belonging to a fourth level, the return path server performs a user authentication referring to the order information and the user database, extracts a billing information from the order information to perform a billing processing in contact with a financial server as a representative of the provider, delivers a user authentication information and a billing processing information in combination with the

15 received order information to the provider system in a packetized form, and updates the content database referring to contents received from the provider system.

8. The return path management method as set forth in claim 6, wherein the return path management system has a hierarchy structure such that determination of the service level to the order information received from the user and processing of communication packets delivered from the return path management system to the provider system are separately performed.

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25 9. The return path management method as set forth in claim 8, wherein the return path management system comprises a return path server and four transaction servers coupled to the return path server in which the return path server receives an order information from the user,

identifies the provider system to which the order information is required to be delivered and determines the level to which the identified provider system belongs, referring to the provider system, and a first transaction server of the four transaction servers treats the order information to be delivered to the provider system belonging to a first level, a second transaction server of

5 the four transaction servers treats the order information to be delivered to the provider system belonging to a second level in which a user authentication is performed referring to the user database, a third transaction server of the four transaction servers treats the order information to be delivered to the provider system belonging to a third level in which a user authentication is performed referring to the user database and a billing processing is performed in contact with a

10 financial server, and a fourth transaction server of the four transaction servers treats the order information to be delivered to the provider system belonging to a fourth level in which a user authentication is performed referring to the user database, a billing processing is performed in contact with a financial server, and an update of contents is performed referring to the content database.